

NECHAYEV, Mikhail Aleksandrovich. Prinimal uchastiye MITROPANOV, I.A.,  
inzh.; ZUBAREV, S.A., retsenzent; LEVIN, A.M., retsenzent;  
SIGAL, I.Ya., retsenzeng; KOLYADA, I.A., retsenzent; STOLPNER,  
Ye.B., nauchnyy red.; FEDOTOVA, M.I., ved. red.; SAFRONOVA, I.M.,  
tekhn. red.

[Safety measures in the transportation, distribution, and use  
of gas fuel] Tekhnika bezopasnosti pri transportirovke, ras-  
predelenii i ispol'zovanii gazovogo topliva. Izd.3., perer.  
i dop. Leningrad, Gostoptekhizdat, 1962. 299 p.

(MIRA 15:4)

(Gas as fuel—Safety measures)

NECHAYEV, M.A.; ISSERLIN, A.S.; MLODOK, B.I.; MICHNIKOVA, A.N.;  
STOLIKER, Ye.B., nauchnyy red.; LESHALYI, M.G., ved. red.;  
YASHCHURZHINSKAYA, A.B., tekhn. red.

[Pocket guide for the gas distribution workers] Kartannyi spravochnik rabotnika gazovogo khoziaistva. Leningrad, Gostoptekhnizdat, 1962. 526 p. (MIRA 15:12)  
(Gas distribution) (Gas appliances)

STOLICH, Ye.B.

Study of single-pipe systems for heating under operating  
conditions. Nauch. trudy VNIIE no. 18:148-157 '62.  
(KIRA 17:7)

GORODSKAYA, Mariya Timofeyevna; STOLINA, Yefim Borisovich;  
LAFERME, I..., nauchn. red.; DESHALYT, M.G., ved. red.;  
KURZHINSKAYA, A.B., tekh. red.

[Household gas appliances] Gazovye bytovye pribory. Leningrad, Gostoptekhzdat, 1963. 179 p. (MIRA 17:3)

STOLANE, Yefim Borisovich; ESTERKIN, Rakhmiyev' Iosifovich;  
ISSERLIN, A.S., nauchn. red.; ROSAKOVA, L.Ya., ved. red.

[Adjustment and operation of the gas supply systems of  
buildings] Nalacka i ekspluatatsiia sistem gazosnabzheniia  
kotel'nykh ustanovok. Izd.2., perer. i dop. Leningrad,  
Izd-vo "M. S.", 1964. 359 p. (MIRA 17:7)

ZAV'YALOV, Mikhail Aleksandrovich; KOMOL'TSEV, K.A., retsenzent;  
STOLPNIK, P.S., red.; POLIKVA, B.Kh., red.izd-va

[Truck cranes and loaders] Avtomobil'nye krany i pogrushiki.  
Moskva, Goslesbumizdat, 1959. 213 p. (MIRA 15:5)  
(Cranes, derricks, etc.)  
(Fork lift trucks)

MEL'NIKOV, Yu.I.; RUSHCHIN, K.I.; STOLPNIK, S.P., red.; YELAGIN, A.S.,  
tekhn. red.

[Celestial brothers] Nebesnye brat'ia. Moskva, Izd-vo  
"Sovetskaia Rossiia." 1963. 109 p. (Biblioteka "V po-  
moshch' sel'skomu klubnomu rabotniku" no.1) (MIRA 16:6)  
(Nikolaev, Andriian Grigor'evich, 1929-)  
(Popovich, Pavel Romanovich, 1930-)

ST( LPNIK, V. [deceased].

Consolidation and concentration of state farm production. Vop.  
ekon. no. 7.68-81 J1 '58. (MIRA 11:8)  
(State farms)



L 10001-65 EPA(a)-2/EXT(a)/EXT(a)/EXT(a)-2/EXT(a)/EXT(a)/EXT(a) Pa-4/TT-4/  
Pa-4/TT-4 RM/DJ/GS  
ACCESSION NR: AT3007908 S/C-1014/000/000/0182/0193

AUTHOR: Alekseenko, Yu. N. (Candidate of technical sciences); Buznitskaya, V.I.;  
Zislavskiy, V.V.; Zvonov, N.V.; Koslov, Y.M.; Moshcheryakov, M.M.; Pogoskida, I.V.;  
Stolpnik, V.P.; Stroganov, V.A.; Yaremlavtsev, B.Ye.

TITLE: Critical tests with the organic moderator, monoisopropylbiphenyl and  
gas oil

SOURCE: Moscow, Institut atomnoy energii. Issledovaniya po primeneniyu organicheskikh  
teplonositeley-srediteley v energeticheskikh reaktorakh (Research on the  
use of organic heat-transfer agents and moderators in power reactors). Moscow,  
Atomizdat, 1964, 182-193

TOPIC TAGS: organic reactor coolant, power reactor, nuclear power plant, thermal  
reactor, heat transfer agent, organic moderator, isopropylbiphenyl, gas oil,  
thermal neutron

ABSTRACT: The article presents the results of critical tests on the organic moder-  
ators isopropylbiphenyl and gas oil; a description of an experimental "organic reac-  
tor", and some results of measurements carried out on this reactor. Graphs are in-  
cluded showing the distribution of thermal neutrons for different values of lattice  
spacing, the calculated dependence of the effective multiplication factor for gas oil and mono-  
isopropylbiphenyl.

1/2

L 40001-65

ACCESSION NR: AT5007908

isopropylbiphenyl, the dependence of the critical number of channels for monoisopropylbiphenyl on the lattice spacing and for gas oil on both the temperature and lattice spacing, as well as the calculated values of the square length of moderation for biphenyl, monoisopropylbiphenyl, and gas oil. The authors conclude that the physical experiments with critical assemblies carried out on monoisopropylbiphenyl and gas oil have made it possible to verify the method and system of constants used for calculating the physical characteristics of reactors with organic heat-transfer agents. Orig. art. has: 12 figures and 2 tables.

ASSOCIATION: None

SUBMITTED 01Aug64

ENCL: 00

SUB CODE: NF, 10

NO REF SOV: 000

OTHER: 000

Card

2/2

STOLPOV, Nikolay Dmitriyevich, kandidat ekonomicheskikh nauk; KUTAF'YEV, S.A.,  
redaktor; MAUMOV, K.M., tekhnicheskij redaktor.

[The Chinese People's Republic] Kitaiskaya Narodnaya Respublika.  
Moskva, Vysshaya partiynaya shkola pri TsK KPSS, 1957. 107 p.  
(MIRA 10:11)

(China)

STOLPOV, N.D.

New stage in the development of the world socialist system and changes in its economic geography. Izv. AN SSSR. Ser.geog. (MIRA 15:12)  
no.6:17-27 N-D '62.

1. Institut ekonomiki mirovoy sotsialisticheskoy sistemy AN SSSR.  
(Communist countries—Industries, Location of)  
(Communist countries—Division of labor)

VASIL'TSOV, V.D.; VOLODARSKIY, L.M.; VOLCHENKO, M.Ya.; GALETSKAYA, R.A.; IROV, N.I.; KARINYA, L.F.; KONOVALOV, Te.A.; MATVIYEVSKAYA, E.D.; PETRESKU, N.I.; RUDAKOV, Ye.V.; SAYFULINA, L.M.; SKVORTSOVA, A.I.; SOKOLOVA, N.M.; SOTNIKOVA, I.A.; STOLFOV, N.D.; SURKO, Yu.V.; TER, V.A.; TRIGUBENKO, M.Ye.; FIRSOVA, Yu.V.; SHABUNINA, V.I.; YUMIN, P.N.; RYABUSHKIN, T.V., doktor ekon. nauk, otv. red.; ALAMFIYEV, P.M., red.; PAK, G.V., red.; GERASIMOVA, D., tekhn.red.

[Economy of socialist countries, 1960-1962] Ekonomika stran  
sotsializma, 1960-1962gg. Moskva, Izd-vo "Ekonomika," 1964.  
261 p. (MIRA 16:12)

1. Akademiya nauk SSSR. Institut ekonomiki mirovoy sotsial-  
sticheskoy sistemy.  
(Communist countries--Economic conditions)

STOLPOVIC, Sava

Our 1st experience with kanamycin. Tuberkuloza 16 no.3:247-251  
My-Ag '64

1. Gradska bolnica za grudobolne "Bezanijska Kosa", Zemun  
(Upravnik: prim. dr. Ljubisa Ilic).

STOLFOVIC, Sava; ANTIC, Nikola

Differences in clinical radiological and surgical findings in the treatment of our cases by resection. Tuberkuloza 16 no.3: 266-270 My-Ag '64

1. Gradska bolnica za grudobolne "Bozanijska Kosa", Zemun (Upravnik: prim. dr. Ljubiša Ilić).

RAKHILIN, A.V.; STOLPOVSKAYA, L.N.

Gastric tetany. Vrach.delo supplement '57:8

(MIRA 11:3)

1. Fakul'tetskaya terapevticheskaya klinika (sav.-prof. M.N.  
Tumanovskiy) Voronezhskogo meditsinskogo instituta.  
(STOMACH--DISEASES)



STOLPOVSKAYA, O. K., Cand of Med Sci — (diss) "Hypochondriac Development During Emotional Psychosis and its Clinical and Pathophysiological Findings," Leningrad, 1959, 11 pp  
(State Institute for the Advanced Training of Physicians in S. M. Kirov)  
(KL, 2-60, 117)

L 1553-66 FSS-2/EMT(1)/FS(v)-3/YCC/EMA(d)/EMA(h) TT/OS/OM  
 UR/0000/65/000/000/0394/0405  
 ACCESSION NR: AT5023610  
 AUTHOR: YERNOV, S. N.; Chudakov, A. Ye.; Vakhlov, P. V.; Gorchakov, Ye. V.;  
 Kuznetsov, S. N.; Logachev, Yu. I.; Nikolayev, A. G.; Sosnovits, E. N.;  
 Rubinshteyn, I. A.; Stolpovskiy, V. O.; El'tekov, V. A.  
 TITLE: Geometric position and particle composition of the earth's radiation belts  
 SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow,  
 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii.  
 Moscow, Izd-vo Nauka, 1965, 394-405  
 TOPIC TAGS: cosmic radiation, earth radiation belt, cosmic ray, Elektron 1, Elek-  
 tron 2  
 ABSTRACT: An exhaustive study is made of data recorded by the Elektron-1 and -2  
 satellites, which were launched on 30 January 1964. Orbital data are given in  
 Table 1 of the Enclosure. The first orbits were positioned so that the satellites  
 passed their apogees at about 3 o'clock a.m. local time. The outer boundary of the  
 radiation belt was thus crossed at about midnight and again at about 7-8 p.m. on the  
 return branch of the orbit. The subsequent orbits were shifted toward the sunset;  
 Elektron-1, by 8 min, and Elektron-2, by about 4 min in the 24-hr period. Elek-  
 tron 1/4

L 1553-6

ACCESSION NR: AT5023610

tron-1 and -2 were equipped with similar instrumentation. In some cases, however, there were differences in energy thresholds. A chart summarizing all data shows the electron and proton fluxes of different energies in the equatorial plane and for comparison gives IMF-1 data. The following conclusions can be made from the chart: 1) A belt of artificially injected electrons exists at distances closest to the Earth's center. The maximum of the belt in February 1964 was at  $L = 1.35$ . The flux of electrons with energy above 2 Mev at the maximum was about  $1 \times 10^7 \text{ cm}^{-2} \cdot \text{sec}^{-1} \cdot \text{ster}^{-1}$ . 2) The average directed flux of protons with an energy of 45-70 Mev at the maximum of the inner belt ( $L = 1.45$ ) was about  $1.5 \times 10^3 \text{ cm}^{-2} \cdot \text{sec}^{-1} \cdot \text{ster}^{-1}$ . A change in the integral spectrum at proton energies above 50 Mev was observed at  $L = 2.2$ ; the spectrum of these energies is in the process of hardening, which could be explained by the theory of albedo neutrons. 3) The spatial distribution of protons with an energy of one to several Mev differs from that of the electrons. There is a definite regularity in the distribution of protons according to their energies. The average directed flux of protons with an energy above 2 Mev was about  $4.5 \times 10^3 \text{ cm}^{-2} \cdot \text{sec}^{-1} \cdot \text{ster}^{-1}$  in the equatorial plane at  $L = 2.8$ . It appears that the majority of the protons in this energy range are created by transverse drift with respect to the magnetic field lines. 4) A belt of high-energy electrons was observed at  $L = 2.75$ . Its width at the equator was about 0.4 earth radii. The average directed flux of electrons above 6 Mev was about  $10^2 \text{ cm}^{-2} \cdot \text{sec}^{-1} \cdot \text{ster}^{-1}$ . 5) A minimum of distribution

Card 2/4

L 1553-66

ACCESSION NN: AT5023610

of electrons of above 150 kev energy was observed in the region between  $L = 3$  and  $L = 5$ . The altitude intensity shift is subject to large fluctuations in time and may drop at times to negligible magnitudes. 6) The maximum of the outer belt is positioned, on the average, at  $L = 4.8$ . The maximum altitude intensity shift indicator  $n = 0.5 \pm 0.3/-0.2$  within a wide range of  $L$ . There is a sharp intensity jump on the night side at  $L = 7 \pm 0.5$ . On the morning side, a slow monotonic drop of intensity was observed. The average directed flux of electrons with an energy of over 70 kev at the maximum of the outer belt is about  $5 \times 10^6 \text{ cm}^{-2} \cdot \text{sec}^{-1} \cdot \text{ster}^{-1}$  and can change by more than an order of magnitude. The electron energy spectrum observed within the 70 to 600 kev range is in agreement with the data of other researchers. The electron energy spectrum in the energy range above 1 Mev appears to be softening, in comparison with measurements of earlier years. Orig. art. has: 11 figures. (77)

ASSOCIATION: none

SUBMITTED: 02Sep69

ENCL: 01

SUB CODE: AA, SV

NO REF SOV: 007

OTHER: 004

ATD PRIMS: 4094

Card 3/11

L 1551-66 EWT(1)/FCC/EWA(h) OW/GS

ACCESSION NR: AT5023613

UR/0000/65/000/000/0420/0425

AUTHOR: Kuznetsov, S. N.<sup>4455</sup>; Sosnovets, . N.<sup>4455</sup>; Stolpovskiy, V. G. <sup>4455</sup> 53  
B1

TITLE: Time variations of the earth's outer radiation belt

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 420-425

TOPIC TAGS: cosmic ray, cosmic radiation, earth radiation belt, Elektron 1, Elektron 2 12.55

ABSTRACT: Data from Elektron-1 and -2 for the period 30 January to 23 February 1964 were used in a study of variations of the outer radiation belt on the night side of the earth. Particular attention was given to the intensity of counts in the maximum of the belt and to variations of the position and boundaries of the maximum. McIlwain coordinates, calculated in the dipole approximation, were used. Graphs of the variations in time of the Kp and K indexes (for the College and Murmansk stations respectively), showed, in general, a decrease in the frequency of the Geiger counter during periods of increased magnetic activity, although occasionally the frequency increased with intense magnetic activity (e.g., on 6 February at

Card 1/3

L 1551-66

ACCESSION NR: AT5023613

12:00 UT). The sudden onset of a magnetic storm can be accompanied by a drop in the count frequency, sometimes by as much as one order of magnitude. The non-monotonic drop in count frequency during the storm of 12-13 February 1964 was explained by the decrease in magnetic disturbance after a sudden beginning and the main phase. After the initial drop, however, a twofold increase in the count frequency was generally observed during a 24-hr period (confirmed also during the storm of 31 January and 20 February 1964). The position of the radiation maximum changed little during magnetic disturbances. However, on 12-13 and 20 February, its L parameter decreased by  $\approx 3.8$  to 4. The boundaries of the belt were affected by the magnetic field changes to a greater degree, and shifts to lesser L at higher as well as lower altitudes were in general agreement with Forbush, Pizzella, and Venkatesan (Geophys. Res., 67, N10, 1962, 3651). Contradictory observations were explained by irregular electron fluxes outside the belt's boundary. The shift of the boundary toward smaller L was attributed to an "outpouring" of electrons near the boundary not only during magnetic storms, as observed by Machum and O'Brien (J. Geophys. Res., 68, N4, 1963, 997), but also under stationary conditions. The intake and output of electrons by the belt can occur within a period of 3 hours. The general conclusion is that the outer radiation belt is highly sensitive to magnetic conditions. The gap between the inner and outer belts appears to be the

Card 2/3

L 1551-66

ACCESSION NR: AT5023613

area in the magnetosphere in which the trapped particles behave in various fashions.  
Data are presented to support this assumption. Orig. art. has: 4 figures. [FP]

ASSOCIATION: none

SUBMITTED: 02Sep65

ENCL: 00

SUB CODE: .AA, SY

NO REF SOV: 002

OTHER: 010

ATD PRESS: 4094

Card 3/3

L 3281-66 FSS-2/EXT(1)/FS(v)-3/FCC/EWA(d)/EWA(h) T<sup>1</sup>/GS/GW  
ACCESSION NR: AT5023614 UR/0000/65/000/000/0425/0433

AUTHOR: Vernov, S. N.; Chudakov, A. Ye.; Vakulov, P. V.; Kuznetsov, S. N.;  
Logachev, Yu. I.; Sosnovata, E. N.; Stolpovskiy, V. G. 42

TITLE: Irregular flows of high energy electrons close to the boundary of the  
earth's radiation belts 571

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva, Moscow,  
1965, Issledovaniya kosmicheskogo prostranstva (Space research); Trudy konferentsii.  
Moscow, Izd-vo Nauka, 1965, 425-433

TOPIC TAGS: geomagnetic field, satellite data analysis, radiation belt<sup>12</sup>

ABSTRACT: The authors analyze data obtained from "Elektron-1" and "Elektron-2" during their first month of operation. The equipment used on the satellites is briefly described. Analysis of data pertaining to the midnight meridian indicates that the intensity of the electrons at the boundary of the outer belt decreases by two or three orders of magnitude within a narrow range of radial distances. It is established that the radiation belt on the night side of the earth terminates on quiet days at  $L = 6.5-7.5$ . On the day side, the boundary of the belt extends on the

Card 1/2



L 3281-66

ACCESSION NR: AT5023614

average to  $L = 9-10$ . (Here  $L$  is the nominal McIlwain parameter calculated in the dipole approximation and expressed in earth radii.) It is found that irregular flows of electrons outside the boundary of the earth's radiation belts appear with an increase in perturbation of the geomagnetic field both at the surface of the earth and at distances of ~30,000 km from the earth. A theoretical explanation is given for this phenomenon. The experimental data support the hypothesis of a closed system of lines of force in the earth's magnetic field up to latitudes of  $75^\circ$ .  
Orig. art. has: 9 figures and 1 table. [14]

ASSOCIATION: none

SUBMITTED: 02Sep65


NO REF SOV: 002

ENCL: 00

OTHER: 010

SUB CODE: ES,SV

ATD PRESS: 4105

Card 2/2 

L 17777-66 EWT(1)/FSS-2/FCC/EWA(d)/EWA(h) TT/GW  
ACC NR: AP6006652

SOURCE CODE: UR/0203/66/006/001/0003/0010

AUTHOR: Vernov, S. N.; Driatskiy, V. M.; Kuznetsov, S. M.; Logachev, Yu. I.; Sosnovets, E. N.; Stolpovskiy, V. G. 45

ORG: Moscow State University, Institute of Nuclear Physics (Moskovskiy gosudar-  
stvennyy universitet, Institut yadernoy fiziki) B

TITLE: Behavior of the radiation belts and anomalous absorption of cosmic radio  
noise in the aurora borealis region during the magnetic storms of 12-14 February  
and 20-21 February 1964

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 1, 1966, 3-10

TOPIC TAGS: cosmic noise measurement, radio wave absorption, aurora, magnetic  
storm, radiation belt, magnetosphere

ABSTRACT: The authors make a direct comparison of electron fluxes with differing  
energies in the outer radiation belt during various stages of geomagnetic disturb-  
ances. The data used in this study were those transmitted by the Electron-1 and  
Electron-2 satellites during the magnetic storms of 12-14 and 20-21 February 1964.  
12

UDC: 550.385.41:621.391.01

Card 1/4

2

L 17777-66

ACC NR: AP6006652

These were relatively weak storms with an abrupt onset. The outer radiation belt behaved differently in each of these cases in spite of the fact that the storms were approximately identical with respect to the amplitude of the main phase. Pc oscillations with a period of approximately 40 seconds were observed on the day of the first storm, indicating a quiet magnetosphere. During the first hour of the storm, an electron flux of  $N \sim 1.5 \times 10^8$  cm<sup>2</sup>/sec/kev was observed at a distance of approximately 10 Earth radii. This region lies far outside the radiation belts of the Earth, and the flux was apparently due to the storm. The magnetic field increased in this region during the first phase of the storm. Electron intensity decreased somewhat after the initial phase. Electron-1 data gave the boundary of the outer radiation belt on the night side as  $L = 6.5-7$  before the abrupt onset of the storm, while the data of Electron-2 gave a value of  $L = 7.4$ . Data from these satellites gave  $L = 5.5-5.8$  and  $L = 5.9$ , respectively, after the initial phase of the storm. This may be explained by compression of the magnetosphere. The period of Pc oscillations after the initial phase was approximately 20 sec. The period of the Pc oscillations was reduced to 16 sec when the boundary of the radiation belt shifted to  $L = 5$ . There was a faster increase in the flux of electrons with energies greater than 40 kev during the main phase of the storm than there was in the intensity of electrons with energies greater than 150 kev. The basic data for the

Card 2/4

L 17777-66  
ACC NR: AP6006652

storm of 20-21 February were those transmitted by the Electron-1 satellite. These data show that the boundary of the outer radiation belt was at  $L = 6-6.5$  before the storm. The period of Pc oscillations was approximately 50 sec. During the first phase of the storm, the boundary of the radiation belt was registered as  $L=5$  and the period of Pc oscillations was 14 sec. An increase in the intensity of the magnetic field was observed at a distance of approximately 10 Earth radii. These data indicate compression of the magnetosphere. Low-energy electrons appeared at great distances from the Earth during the first phase of the storm. Data from 10 stations were used for studying the absorption of cosmic radio noise in the region of the aurora borealis. The first burst of auroral zone absorption was observed on the day side of the Earth during the first phase of the storm. This may be due to the fact that the boundary of the magnetosphere was approaching the Earth. The amplitude of anomalous absorption increased from  $\sim 1$  db to  $\sim 3.5$  db when the boundary of the radiation belt moved from  $L = 5.6$  to  $L = 9.6$ . Beyond this point, there was a reduction in auroral zone absorption. After the initial phase, no more such strong "bursts" of anomalous absorption were observed until the development of the main phase. Anomalous absorption was again observed during the main phase but this time with no clear relationship to  $L$ . An analysis of the data shows that electrons pour out of the radiation belts on the day side of the earth during the first phase

Card 3/4

L 17777-66

ACC NR: AP6006652

of a magnetic storm. This is indicated by the reduction in electron intensity in the maximum of a belt and at higher values of  $L$ . Evaluations show that during the first phase of a storm the mirror points of electrons in the outer radiation belt may move several hundred kilometers closer to the Earth. Anomalous absorption in the auroral zone may be observed between the first and main phases of a magnetic storm. However, in this case they are accompanied by various effects in the radiation belt region. A comparison of data on auroral zone absorption and the behavior of radiation belts shows that anomalous absorption is sometimes accompanied by a reduction in intensity in the belt and sometimes by no changes at all or even an increase in the number of particles in the belt. More data are needed on auroral zone absorption around the entire Earth and at  $L < 4$ . Orig. art. has: 9 figures. [14]

SUB CODE: 08/

SUBM DATE: 03Aug65/

ORIG REF: 005/

OTH REF: 004

ATD PRESS: 4209

Card 4/4 TS

STOLPOVSKIY, Boris Georgiyevich, zhurnalist-mezhdunarodnik, radio-kommentator; VERBITSKIY, G., red.; TROYANSKAYA, N., tekhn. red.

[The German Democratic Republic is building socialism] GDR stroit sotsializm. Moskva, Gospolitizdat, 1962. 93 p. (MIRA 16:1)  
(Germany, East—Economic conditions)

ACC NR: AI6031022

SOURCE CODE: UR/0109/66/011/009/1586/1588

AUTHOR: Novostruyeva, L. I.; Stolpyanskly, M. P.; Pilatov, K. V.; Shteynshleyger, V. B.; Lifanov, P. S.

ORG: none

TITLE: A maser with a microcooler operating at 40°K

SOURCE: Radiotekhnika i elektronika, v. 11, no. 9, 1966, 1586-1588

TOPIC TAGS: maser, waveguide

ABSTRACT:

A ruby maser with a miniature closed-cycle cooler for operation at a temperature of 40°K is described (see Fig. 1). The resonator head (1) is a silver-coated ruby in the form of a parallelepiped with sapphire signal and pumping waveguides coupled to ordinary stainless-steel waveguides. The resonator is mounted between the poles of a

Card 1/4

UDC: 621.375.8

ACC NR: AP6031022

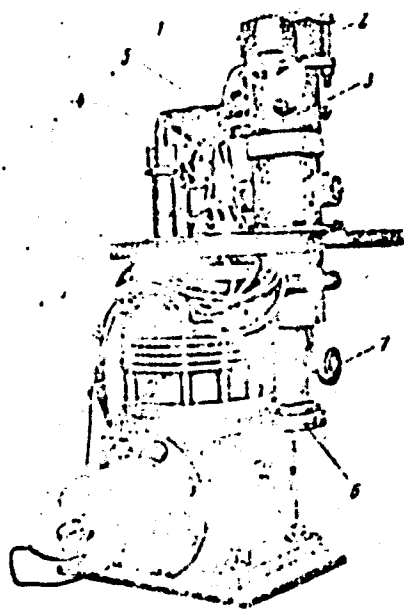


Fig. 1. Maser with microcooler

1 - Resonator head; 2 - magnet; 3 - support; 4 - microcooler cold zone tube; 5 - contact reed; 6 - air-tight flange of signal waveguide; 7 - air-tight flange of pumping waveguide.

miniature permanent magnet (2) rigidly attached to a support (3) which

Cord 2/4



ACC NR: AP6031022

is maintained at normal temperature ( $\sim 300^\circ\text{K}$ ). A copper reed (5) provides thermal contact between the cold zone (4) of the microcooler and the resonator head.

Total heat flux through the maser head is about 2 w at  $10^{-3}$  mm Hg. By separating the resonator head from the waveguides, this heat flux is reduced to below 0.5 w.

The ruby maser was operated at the 3-cm wavelength in the push-pull mode. At a temperature of  $40^\circ\text{K}$  and with a chromium concentration in the ruby of 0.1% the quantity  $(\sqrt{G}-1)\Delta f$  ( $G$  is the gain and  $\Delta f$  is the bandwidth), which determines the bandwidth characteristic of the amplifier, reached 19 Mc.

The observed dependence of gain on temperature (see Fig. 2) indicated that, with proper chromium concentration, variations in gain caused by changes in the microcooler temperature can be considerably reduced.

The measured noise temperature of the maser did not exceed  $70^\circ\text{K}$ , which was in agreement with the theory. Its amplitude characteristic was linear up to an input power level of  $\sim 0.15$   $\mu\text{w}$  in the

Card 3/4

ACC NR: AP6031022

presence of a cw signal and up to an input energy level of  $1.5 \times 10^{-9}$  joule in the presence of a pulse signal of low repetition rate. No irreversible processes were observed, even in the presence of very strong pulse signals.

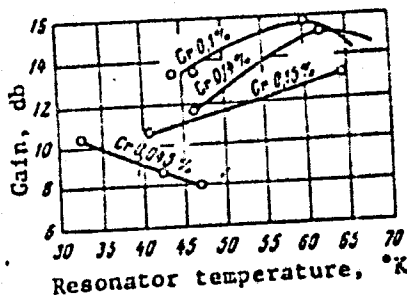


Fig. 2. Temperature dependence of maser gain

The maser was found to have a narrower transmission band and a higher noise temperature at 40° K than at liquid helium temperature. However, these disadvantages are offset by the economy and smaller size and weight of the maser. In addition, because of the relatively low noise level, high reliability, and physicochemical stability of the ruby crystal, the maser oper-

ating at 40° K can often match the performance of other types of low-noise amplifiers. Orig. art. has: 3 figures. [FSB: v. 2, no. 8]

SUB CODE: 20 / SUBM DATE: 13Jul65 / ORIG REF: 004 / OTH REF: 003

Card 4/4

Sh. M. ..., ... .., ..., ....

"Magnetic Properties of Magnetic Oriented Powder Specimens with  
high permeability" Sverdlovsk

Conference on Physics of Magnetic Phenomena,  
May 1-5, Sverdlovsk, 1961

POTULOVA, Yelizaveta Aleksandrovna; STOLSHTEYN, Iosif Borisovich;  
ALAMIDOV, R.I., red.; YEMEL'YANOVA, Ye.V., red.; LEVONKIVSKAYA,  
L.G., tekhn.red.

[New developments in the work of spinners of Leningrad] Novoe  
v trude priadil'shchits Leningrada. Leningrad, Lenizdat, 1950.  
96 p. (MIRA 13:2)

(Leningrad--Spinning)

KOSTUCH, Barbara, STOLTMAN, Czeslaw

Fluothane anesthesia according to our observations. Roczn.  
pom. akad. med. Swierczewski 9:187-197 '63.

1. Z I Kliniki Chirurgicznej Pomorskiej Akademii Medycznej  
Kierownik: doc. dr med. Jan Kortas.  
(HALOTHANE) (ANESTHESIA, INHALATION)

STOL'TSER, E. E.

Intra- and extra-pulmonary sequestration of the lung in children.  
(MIRA 15:7)  
Khirurgiia no.6:62-65 Je '62.

1. Iz kliniki detskoy khirurgii (zav. - prof. S. Ya. Doletskiy)  
TSentral'nogo instituta usovershenstvovaniya vrachey i Detskoy  
klinicheskoy bol'nitsy imeni I. V. Rusakova (glavnyy vrach -  
zasluzhennyy vrach RSFSR dotsent V. A. Kruzhkov)

(LUNGS--SURGERY)

STOL'TSER, E. E. (Moskva Zh-28, Pokrovskiy bul'var, d. 8, kv. 5)

Pierre Marie-Bamberger's syndrome in a 13-year-old child with  
neurinoma of the left lung. Grud. khir. 4 no. 3:109-111  
My-Je '62. (MIRA 15:7)

1. Iz kliniki detskoy khirurgii (zav. - prof. S. Ya. Doletskiy)  
TSentral'nogo instituta usovershenstvovaniya vrachey (dir.  
M. D. Kovrigina) na baze Detskoy bol'nitsy imeni I. V. Rusakova  
(glavnyy vrach - zasluzhennyy vrach RSFSR dotsent V. A. Kruzhkov)

(LUNGS---TUMORS) (JOINTS---DISEASES)  
(BONES---DISEASES)

ELERKOVICH, I.G.; STOL'TSER, E.E. (Moskva, Zh-28, Pokrovskiy bul'var, d.8.  
kv.5).

Atelectasis following operations on the lungs in children. Gruda.  
khir. 5 no.4:61-67 JI-Ag'63 (MIRA 17:1)

1. Iz kliniki detskoy khirurgii (zav. - prof. S. Ia. Doletskiy)  
TSentral'nogo instituta usovershenstvovaniya vrachey i Detskoy  
gorodskoy klinicheskoy bol'nitsy No.2 imeni I.V.Rusakova (glav-  
nyy vrach - dotsent V.A. Kruzhkov).



STOLIAR, A. A.

23751 PRIMENENIYE PONYATIYA PREDELA V SHKOL'NOM KURSE GEOMETRII.  
MATEMATIKA V SHKOLE, 1949, NO. 4, S. 36-39

SO: LETOPIS' NO. 31, 1949

STOLYAR, A.

Monography

Application of symbols in a course of stereometry, part. v. symbols  
No. 1, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

**STOLYAR, A. (Minsk)**

Book by U.S. Davydov "Problems for the study of equations." Mat.  
v shkole no.1:72-75 Ja-F '55. (MLBA 8:2)  
(Equations--Problems, exercises, etc.)(Davydov, U.S.)

STOLYAR, A.A., kandidat pedagogicheskikh nauk.

The relation between the development of language and the development  
of thought in pupils during mathematics classes. Uch. zap. Magil. gos.  
ped. inst. no.1:125-144 '55. (MIRA 10:4)  
(Mathematics--Study and teaching) (Children--Language)

STOLYAR, A.A. (Mogilev).

From the pages of the periodical "Journal of mathematics and physics,"  
Mat. v shkole no.2:77-80 Mr-Apr '58. (MIRA 11:2)  
(Rumania--Mathematics--Periodicals)

STOLYAR, A.A. (Mogilev).

Reviewing the mathematics textbook for elementary-school grade 8  
of the German Democratic Republic. Mat. v shkole no.5:65-71 S-O  
'58. (MIRA 11:10)

(Germany, East--Mathematics--Textbooks)

STOLYAR, A.A. (Mogilev)

Problem of explaining the equation concept. Mat. v shkole no.1: 1  
67-71 Ja-F '59. (MIRA 12:1)  
(Equations)

STOLYAR, A.A. (Mogilev)

Enumeration of propositions and justification of certain logical  
means of deduction. Mat. v shkole no.3:21-34 My-Je '59.

(MIRA 12:9)

(Logic, Symbolic and mathematical)



STOLYAR, A.A., kand. pedagog. nauk, red.; VEKEVKINA, M.M., red.;  
MORGUNOVA, G.M., tekhn. red.

[Relationship between the teaching of higher mathematics  
in a pedagogical institute of higher education and the  
teaching of mathematics in school] Sviaz' prepodavaniia  
vysshei matematiki v pedagogicheskom vuze s prepodavaniiem  
matematiki v shkole. Minsk, Izd-vo M-va vysshego, srednego  
spetsial'nogo i professional'nogo obrazovaniia BSSR, 1963.  
84 p. (MIRA 16:5)

(Mathematics--Study and teaching)

STOLIAR, A.A. (Mogilev); PESKOV, T.A. (Ufa)

"Geometry; textbook for grades 6-8" by N.N. Nikitin. Reviewed by  
A.A. Stoliar, T.A. Peskov. Mat. v shkole no. 2: 76-79 Mr-Apr '63. (MIRA 16:4)  
(Geometry)  
(Nikitin, N.N.)

ACC NR: AP6035940

SOURCE CODE: UR/0413/06/0 0/020/0199/0199

INVENTOR: Zemiyanitskiy, A. N.; Karpovich, B. K.; Motin, I. I.; Stolyar, A. I.;  
Nuzhdin, V. V.; Ponomarev, I. V.

ORG: none

TITLE: Centrifugal blower water separator for aircraft ventilation systems.  
Class 62, No. 147539

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 199 .

TOPIC TAGS: aircraft cabin environment, aircraft cabin equipment, centrifugal blower,  
air conditioning equipment

ABSTRACT: An Author Certificate has been issued for a centrifugal blower water separator for aircraft ventilation systems, consisting of a housing with intake apertures and a nozzle; the housing contains a rotating drum with radial blades and has openings along its outer surface. To simplify construction and decrease its size, between the blades and end wall in the back portion of the drum is mounted a guide arranged to direct the flow in the opposite direction; the guide channels air into an outlet duct, which is located along the blower's axis and fastened in the forward part of the housing.

SUB CODE: 01, 13/ SUBM DATE: 06Nov64/

UDC: 629.13.01/06  
66.071.7

Card 1/1

STOIYAR, A. I.

Otlivka gil'z iz serogo chuguna v kokil' bez posleduiushchei termootrabotki.  
(Vestn. Mash, 1949, no. 4, p. 40-41)

(Chill casting of gray-iron socket without subsequent heat treatment.)

DLC: TM4.74

SO: Manufacturing and Mechanical Engineering in the Soviet Union.  
Library of Congress, 1953.

STOLYAR, A.I.; SHEVCHENKO, Ya.Ya.

Operating experience with the vacuum manometer filters of the  
Litvinov - Mar'ianchik - Kheize system. Sakh. prom. 35 no. 1:47-  
49 Ja '61. (MIRA 14:1)

1. Kiyevskiy sakharotrest (for Stolyar). 2. Salivonkovskiy  
sakharnyy zavod (for Shevchenko).  
(Kiev Province--Sugar manufacture)  
(Filters and filtration)

KUZNETSOV, S.I.; SEREBRENNIKOV, O.V.; DEREVIANKIN, V.A.; VOLKOVA, F.I.;  
PAVLOV, F.H.; YEVTYUTOV, A.A.; CHEMODANOV, V.S.; STOLYAR, B.A.;  
KONOVALOV, I.V.; LIVER, V.B.; MIYCHENKO, V.S.; SMIRNOV, B.A.

"Production of alumina" by A.I. Lainer. Reviewed by S.I.  
Kuznetsov and others. TSvet. met. 34 no.11:85-86 N '61.

(MIRA 14:11)

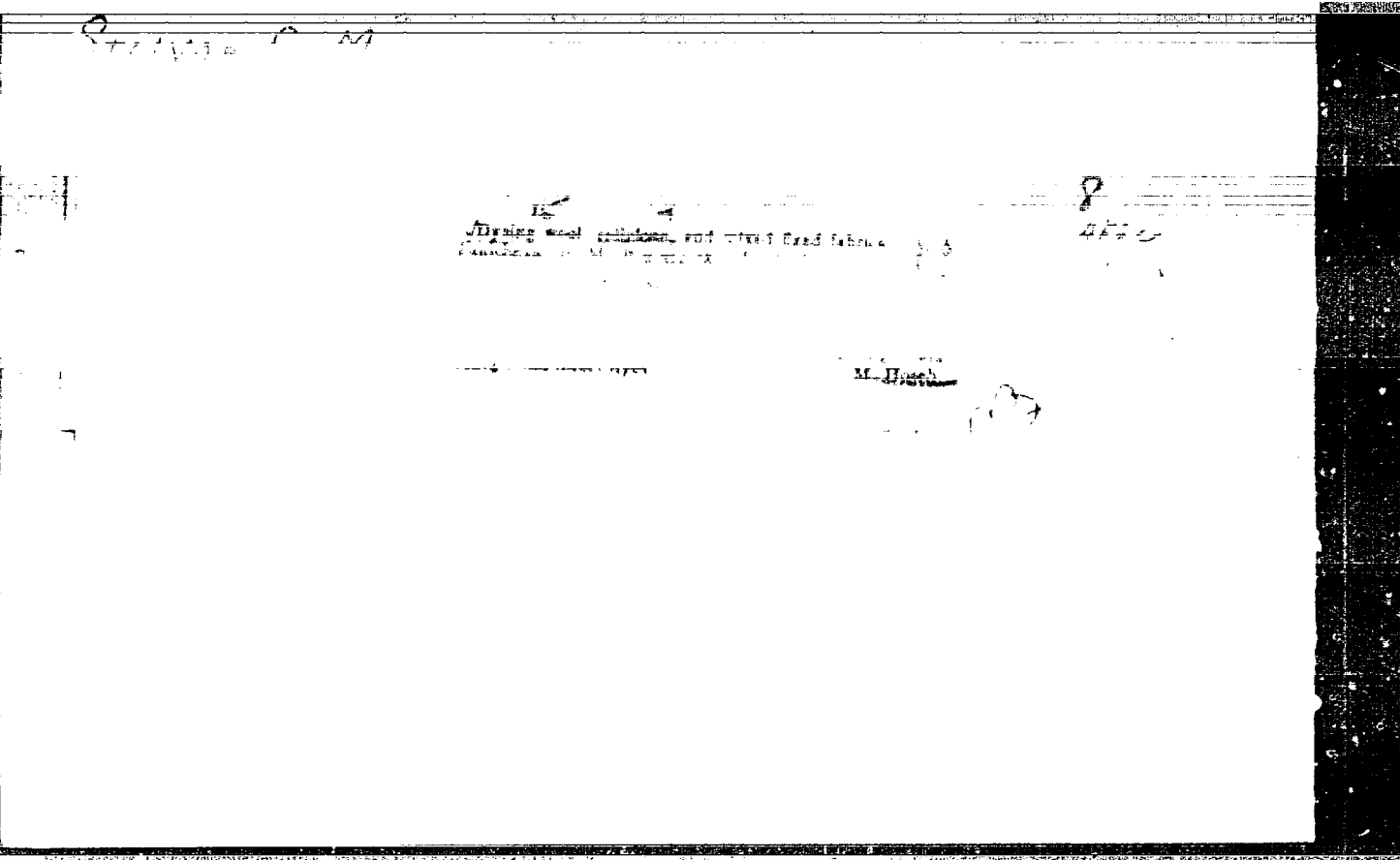
1. Ural'skiy politekhnicheskii institut (for Kuznetsov,  
Serebrennikov, Derevyankin). 2. Ural'skiy filial AN SSSR  
(for Volkova, Pavlov). 3. Ural'skiy alyuminiyevyy zavod (for  
Yevtyutov, Chemodanov, Stolyar). 4. Bogoslovskiy alyuminiyevyy  
zavod (for Konovalov, Liver, Miychenko). 5. Sverdlovskiy  
Sovmarkhez (for Smirnov).

(Alumina)  
(Lainer, A.I.)

SKOLNICHKOV, A.A., retsentsent; ~~STOLYAR, G.M.~~, nauchnyy redaktor; ARAMKHELI-  
SKIY, S.S., redaktor; MEDVEDEV, L.L., tekhnicheskiy redaktor

[Manual on dyeing and finishing woolen materials] Spravochnik po  
krasheniyu i otdelke sherstnykh tkaney. Moskva, Gos.nauchno-  
tekhn.izd-vo M-va legkoj promyshl.StSR, 1957. 503 p. (MIRA 10:10)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut  
sherstnyy promyshlennosti  
(Woolen and worsten manufacture) (Dyes and dyeing--W 41)





STOLYAR, I.S., inzh.

Ways of making use of mine gas in the Donets Basin as a type  
of power fuel. Ugol' 39 no.7:54-57 Ji '64.

(MIRA 17:10)

1. Vsesoyuznyy tsentral'nyy gosudarstvennyy institut po proyektirovaniyu i tekhniko-ekonomicheskim obnoveniyam razvitiya ugol'noy promyshlennosti.

STOLYAR, I.; PAVLYUKH, I., prepodavatel' spetsial'noy tekhnologii

Groups on profile polishing. Prof.-tekh. obr. 22 no.10;  
10.31 0 '65. (MIRA 18:10)

CHERNYAK, N.I.; STOLYAR, L.N.; ZHILOVSKIY, N.I.

Materials on the stratigraphy and lithology of Paleogene deposits  
in the central synclinal zone of the Carpathians. Trudy VNIIGI no.12:  
61-68 '58. (MIRA 12:3)  
(Tereblya Valley--Geology, Stratigraphic)

STOLYAR, N.G.

Methods for studying polymers at high temperatures.

Zav. lab. 31 no.10:1117-1118 '65.

(USSR 19:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut  
pivo-benzol'kopol'nyy i vinnyy promyshlennosti.

STOYAR, M. G.

13237. Sposob O'bora Sredney Iroby Diffuzionnogo Soka. ~~Co~~Xaj. Irom-st',  
1949, No. 10, c. 37-38

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

STOLYAR, M.O.; SAMODUMSKAYA, A.A.

Determining the moisture content of raw materials for the  
manufacture of liqueurs. Spirt. prom. 25 no.4:38-39 '59.  
(MIRA 12:7)

(Liquor industry--Equipment and supplies)

STOLYAR, M.G.

Conditions for obtaining homogeneous batches for the continuous cooking of grain. Spirt.prom. 25 no.8:9-12 '59.  
(MIRA 13:3)

(Alcohol)

STOLYAR, M.G.

Changes of starch in the course of the thermal treatment of its  
aqueous suspensions. Spirt.prom. 27 no.1:10-16 '61. (MIRA 14:2)

(Starch)



STOLYAR, M.G.

Changes in wheat starch undergoing hydrothermal treatment.  
Spiral. prom. 27 no.4:16-19 '61. (MIRA 14:6)  
(Heat)  
(Starch—Thermal properties)

STOLYAR, M.G.

Differential-thermal analysis of cornstarch. Fern. i spirt. prom. 30  
no.6:8.11 '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivo-besalkogol'noy  
i vinnoy promyshlennosti.

STOLYAR, M.YA.

Determining the ore deposit factor and its application. *Barved.1*  
okh.nedr 22 no.12:17-20 D '56. (MLBA 10:2)

1. Ministerstvo geologii i okhrany nedr SSSR, Glavredasgeologiya.  
(Ore deposits)

DYATLOVA, V. P., kand. tekhn. nauk; GRYZLOVA, P. G., inzh. STOLYAR, N. M.,  
inzh.; AKISHINA, R. I., tekhnik; ZIL'BERSHTEYN, K. Ya., tekhn. k

Use of indene-coumarone resins in adhesive compositions for  
finishing polymer materials. Sbor. trud. VNIINSM no. 5:75-81  
'61. (MIRA 15:10)

(Resins, Synthetic) (Adhesives)

TROFIMOV, Aleksey Mikhaylovich; STOLIAR, M.M., insh., retsentsent;  
KHAYMOVICH, Ye.M., doktor tekhn. nauk, prof., red.;  
NIKIFOROVA, R.A., insh., red.; GORMOSTAYPOL'SKAYA, M.S.,  
tekhn. red.

[Album of diagrams of metal-cutting machines] Al'bom skhem metallo-  
reshushchikh stankov. Moskva, Mashgis. Pt.2. [Milling, thread-  
cutting, planing, broach-grinding, dressing, gear-cutting machines  
and machine-assemblies] Frezernye, rez'bonareanye, strogal'nye,  
protiazhnye shlifoval'nye, zatochnye, zuboobrabatyvaiushchie, agre-  
gatnye stanki. 1962. 69 p. — [Description] Opisanie. 252 p.  
(MIRA 16:1)

(Cutting machines)

RAYKHLIN, Y.I., kandidat tekhnicheskikh nauk; STOLYAR, G.M., inzhener.

Continuous method of scouring and washing worsted fabrics. Tekst.  
prom. 16 no.9:35-36 S '56. (MLRA 9:12)

(Woolen and worsted manufacture)

STOLIAR, T.F., udarnik kommunisticheskogo truda, traktorist

Skillful hands and a good will speed the work. Mekh. sil'. hosp.  
1/4 no.8:17-18 Ag '63. (MIRA 17:1)

1. Kolkhoz "Druzhba" Mogilev-Podol'skego proizvodstvennogo uprav-  
leniya Vinnitskoy oblasti.

STOLYAR, V.S.; BABENKO, Yu.A.; KRYZHANOVSKIY, V.N.

Problems concerning combustion in block combustion chambers of  
gas turbine systems. Energ. i elektrotekh. prom. no.3:20-24  
J1-S '63. (MIRA 16:10)

1. Kiyevskiy politekhnicheskij institut.



ALEKSEYEV, A.V.; STOLYAR, V.S.

Investigating a frontal device with preliminary mixing for the  
combustion chamber of a GT-6-750 gas turbine assembly. Gaz.  
prom. 7 no.2:27-30 '62.  
(MIRA 17:6)

BALON, I.D., kand.tekhn.nauk; ROMANENKO, N.T., inzh.; YUPKO I.D., inzh.;  
BOLKUNOV, Ye.P., inzh.; TULUYEVSKAYA, T.A., inzh.; ASEMUROV, P.I., inzh.;  
VOLOVIK, A.V., inzh. Prinizialni uchastiye: BAKAYEV, A.A.; VOKHNIK, A.R.;  
KOLOS, V.D.; KAYSTRO N.P. [deceased]; LITVINENKO, V.I.; MAKARCHENKO, N.M.;  
ONOPRIYENKO, V.P.; PALAGUTA, V.P.; PIKA, V.S.; RAGIN, B.I.; ROMANCHENKO,  
Ye.I.; SAYENKO, S.D.; STOLYAR, V.V.; SKORIK, N.M.; TOROPENKO, P.D.

Characteristics of making ferromanganese in large capacity blast furnaces  
and the effect of slag conditions on basic technical and economic indices.  
Stal' 23 no.12:1069-1073 D '63.  
(MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i zavod "Zapo-  
rozhtal'".

STARSHINOV, B.N.; SINITSKIY, V.D.; SEN'KO, G.Ye.; GLUYGA, D.V.; BABIY, A.A.;  
KHORUZHNIY, A.G.; Prinimali uchastiye: OSTROUKHOV, M.Ya.; SAVEDOV,  
N.I.; PLISKANOVSKIY, S.T.; MOISEYEV, Yu.G.; LAVRENT'YEV, M.I.;  
TARASOV, F.P.; ZAGREBA, A.V.; KAMENEV, P.D.; TRACHENKO, A.A.;  
FREYDIN, L.M.; LUKIN, P.G.; POPOV, Yu.A.; MISHIN, P.P.; KARACHENTSEV,  
M.D.; DOLMATOV, V.A.; AYUKOV, A.S.; PALAGITA, V.P.; VYAZOVSKIY, Yu.V.;  
SOLODKIY, Yu.A.; KONAREVA, N.V.; SAPRONOV, Yu.V.; SINITSKAYA, S.K.;  
SAPRONOV, P.V.; LEKAREV, V.L.; STOLYAR, V.V.; PROKHORENKO, Z.A.;  
BANDINA, Ye.Ye.

Results of the first year of operation of large capacity blast  
furnaces. Sbor. trud. UNIIM no.11:34-46 '65.

(MIRA 18:11)

CHOCHIA, K.N., SHVARTSBERG, Ye.M., STOLIAR, Ya.

Blood transfusion in control of postirradiation leukopenia  
[with summary in English]. Med.rad. 3 no.5:84-90 8-0 '58 (MIRA 11:12)

1. Iz TSentral'nogo nauchno-issledovatel'skogo rentgenoradiologicheskogo instituta Ministerstva zdavookhraneniya.

(LEUKOCYTE, COUNT.

leukopenia after x-ray ther., prev. by blood transfusion (Rus))

(BLOOD TRANSFUSION,

in leukopenia after x-ray ther. (Rus))

(RADIOTHERAPY, compl.

leukopenia, prev. by blood transfusion (Rus))

REEL

549

STOLYAR, YA.

**END**